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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,365	07/11/2001	Frode Bjelland	032868-003	9557

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ERICSSON INC.
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PLANO, TX 75024

EXAMINER

D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
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2683

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DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/903,365

Applicant(s)

BJELLAND ET AL.

Examiner

Stephen M. D'Agosta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,9,10,12 and 14 is/are rejected.
- 7) ☒ Claim(s) 3, 5, 7-8, 11, 13 and 15-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Drawings

The drawings were received on 7-11-01 and have been reviewed by the draftsman and examiner.

Information Disclosure Statement

The two information disclosure statements (IDS) submitted on 2-4-02 & 4-17-02 are being considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4, 6, 9-10, 12 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Shin US 6,640,105 and further in view of Kari et al. WO97/26739 and Graf et al. US 6,671,367 (hereafter Shin, Kari and Graf).

As per **claim 1**, Shin teaches a method of facilitating communication in a telecommunication network having a control-plane entity (CPE) and a user-plane entity (UPE) [figure 1 shows both "planes" labeled at the top of the page and C1, L64-6], comprising the steps of:

Sending from the CPE to the UPE, an event where the event orders the UPE to notify the CPE (figure 3 shows network/control side sending a "Measurement Control"

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signal/event to the user side [see Step 2, S2]) when a predetermined volume of communication has occurred (C3, L35-39);

Determining, by the UPE, whether the predetermined volume of communication has occurred (C3, L39-44); and

Notifying the CPE when the predetermined volume of communication has occurred (C3, L44-50).

But is silent on facilitating charging/billing AND sending the event in accordance with a media gateway control protocol (MGCP).

Kari teaches a packet radio system that bills/charges users based on usage (eg. volume) of the radio system (abstract and page 2, L14-25). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Shin, such that measuring/monitoring communication volume can be used to bill/charge a customer, to provide the ability to charge based on air-time usage.

Graf teaches a new network architecture resulting from the separation of the call and Bearer Control levels results in an open interface appearing between a Call Control entity and a Bearer Control entity, where these entities are referred to as a Media Gateway Controller (eg. control plane, spec. page 6, #0020) and a Media Gateway (eg. user plane, spec. page 6, #0020) respectively. The open interface is referred to hereinafter as X-CP, examples of which are the MEGACO work of the IETF and the H.248 work of ITU Study Group (C1, L63 to C2, L3) **AND** preferably, the signalling point or signalling transfer point is a Media Gateway Controller. More preferably, the Media Gateway Controller communicates with one or more Media Gateways which exist at the Bearer Control level (C3, L7-10).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the combination of Shin and Kari, such that an MGCP is used, to provide means for a new network architecture based upon industry standards such as MEGACO or H.248 (spec. page 6, #0019).

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As per **claim 2**, Shin in view of Kari and Graf teaches claim 1 wherein the predetermined volume of communication is a predetermined number of octets (abstract, C3, L27-50 teaches measuring traffic and C1, L20-35 teaches GSM cellular system that supports transmission of "video and data" which would be digital and measured in bytes/octets).

As per **claim 4**, Shin in view of Kari and Graf teaches claim 1 wherein the volume of communication is selected such that the signaling between the CPE and UPE is controlled (C3, L35-50 teaches measuring and controlling the bearer portion based on said measurement, L48-50).

As per **claim 6**, Shin in view of Kari and Graf teaches claim 1 wherein the event orders the UPE to notify the CPE when the at least one of a predetermined volume of communication has occurred and a predetermined time period of communication has elapsed (figure 4c graph shows measuring of "traffic quantity" and "report time point" which read on measuring volume over a time period – also, the graph shows "time" in the X coordinate plane).

As per **claim 9**, Shin teaches a method of facilitating communication in a telecommunication network having a control-plane entity (CPE) and a user-plane entity (UPE) [figure 1 shows both "planes" labeled at the top of the page and C1, L64-6], comprising the steps of:

An event orders the UPE to notify the CPE (figure 3 shows network/control side sending a "Measurement Control" signal/event to the user side [see Step 2, S2]) when a predetermined volume of communication has occurred (C3, L35-39);

Determining, by the UPE, whether the predetermined volume of communication has occurred (C3, L39-44); and

Notifying the CPE when the predetermined volume of communication has occurred (C3, L44-50).

But is silent on facilitating charging/billing AND pre-provisioning in the UPE an event AND sending the event in accordance with a media gateway control protocol (MGCP).

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The examiner notes that "pre-provisioning" is interpreted as a software-based program/process that measures data and compares the measurements to a threshold/range (similar to teachings of Shin (C3, L35-50)). Shin teaches a UPE software algorithm (figure 6) whereby the traffic is monitored every 10ms in a feedback loop which reads on pre-provisioning since it was preprogrammed by an engineer to operate in this manner). One skilled realizes that the UPE can wait for a message from the CPE to begin measuring traffic or the system can have the UPE measure autonomously and report to the CPE when traffic data is out of range.

Kari teaches a packet radio system that bills/charges users based on usage (eg. volume) of the radio system (abstract and page 2, L14-25). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Shin, such that measuring/monitoring communication volume can be used to bill/charge a customer, to provide the ability to charge based on air-time usage.

Graf teaches a new network architecture resulting from the separation of the call and Bearer Control levels results in an open interface appearing between a Call Control entity and a Bearer Control entity, where these entities are referred to as a Media Gateway Controller (eg. control plane, spec. page 6, #0020) and a Media Gateway (eg. user plane, spec. page 6, #0020) respectively. The open interface is referred to hereinafter as X-CP, examples of which are the MEGACO work of the IETF and the H.248 work of ITU Study Group (C1, L63 to C2, L3) **AND** preferably, the signalling point or signalling transfer point is a Media Gateway Controller. More preferably, the Media Gateway Controller communicates with one or more Media Gateways which exist at the Bearer Control level (C3, L7-10).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the combination of Shin and Kari, such that an MGCP is used, to provide means for a new network architecture based upon industry standards such as MEGACO or H.248 (spec. page 6, #0019).

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As per **claim 10**, Shin in view of Kari and Graf teaches claim 1 wherein the predetermined volume of communication is a predetermined number of octets (abstract, C3, L27-50 teaches measuring traffic and C1, L20-35 teaches GSM cellular system that supports transmission of "video and data" which would be digital and measured in bytes/octetets).

As per **claim 12**, Shin in view of Kari and Graf teaches claim 1 wherein the volume of communication is selected such that the signaling between the CPE and UPE is controlled (C3, L35-50 teaches measuring and controlling the bearer portion based on said measurement, L48-50).

As per **claim 14**, Shin in view of Kari and Graf teaches claim 1 wherein the event orders the UPE to notify the CPE when the at least one of a predetermined volume of communication has occurred and a predetermined time period of communication has elapsed (figure 4c graph shows measuring of "traffic quantity" and "report time point" which read on measuring volume over a time period – also, the graph shows "time" in the X coordinate plane).

Allowable Subject Matter

Claims 3, 5, 7-8, 11, 13 and 15-16 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 3 and 11: The prior art cited does not teach the UPE notification that includes a parameter identify the communication.

Claims 5 and 13: The prior art cited does not teach a GPRS network with a GPRS support node that is split into the CPE and UPE.

Claims 7 and 15: The prior art cited does not teach a circuit switched network using packet bearers having a node that is split into CPE and UPE and the predetermined volume of traffic is one of a predetermined number of octets and packets.

Claims 8 and 16: Depends on claim 7.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. Le US 6,466,585
2. Kilkki et al. US 6,411,617
3. Denman US 6,490,451
4. Lopponen et al. US2002/0150091

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SMD

